



REPORT ON SURGERY;

A PAPER READ BEFORE THE

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AT ITS

ANNUAL MEETING,

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ERRATA.

Read on page 3, Staphyloraphy.

4, lithotome-caché.

4, Allarton.

12, last line, any other application.

14, eleventh line, superior two-thirds.

14, twenty-sixth line, by insensibility. 14, thirtieth line, Hypodermic.



REPORT ON SURGERY.

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Mr. President and Gentlemen:

I designed to present to you an epitome of the surgery of Ohio from the earliest date, with comments upon the operations as recorded, and such corrections as was in my power to make, but the work has accumulated upon my hands to such an extent that I can not do justice to the subject at this time. Therefore I defer the proposed report and present a hastily prepared commentary upon a few topics in surgery, mostly the result of my personal observation.

STAPHYLOROPHY.

The operation for fissure of the soft palate was introduced by Mr. Roux, in 1819, and repeated by Dieffenbach and other surgeons. In 1843, J. Mason Warren, M. D., proposed some "improvements" in the plan of operating. The most important, as he considered, was "the division by seissors, first, of the posterior pillar of the palate—the palato-pharygeus muscle—and, secondly, of the superior palatine muscles—the tensor and levator palati."

To this plan I object, that the muscles thus separated from their attachments are seldom reattached to their original positions, so that the velum, restored by the operation, is not controlled and made useful by these muscles.

To obviate this condition I have resorted to the plan of applying the sutures the whole extent of the fissure, and after they are secured, relieving the tension, where any exists, by incisions of greater or less extent, and as distant from the stitches as is allowable. By this method I have had excellent results in several cases, with complete closure of the fissures and usefulness of the muscles, and in the one case, which I have been able to observe for sixteen years, the articulation of sounds is perfect, so that no defect of speech is observable. In other cases I have not been able to determine the extent of the improvement in speech, the patients having passed out of my observation soon after the operations were completed.

TRACHEOTOMY.

In this operation success often depends upon keeping the artificial passage freely open. To secure this a tube has been devised, but in many cases it can not be tolerated, and is the source of inflammation and increased secretion of mucus. To meet the emergency in one case, I took the ordinary wire speculum for separating the eye-lids, cut off the bows and adapted the instrument to the purpose. It was retained without producing the slightest inflammation, or irritation even, and the patient recovered. In other cases it has proved a valuable substitute for the tube. I present you with the original instrument, and with an improved form answering the same indication.



The accompanying cuts give a fair representation of the instruments.

LITHOTOMY.

The choice of method is subject to the law of "fashion." The most popular plan for the last half century has been by the lateral perineal section, but there have been those who have preferred other procedures.

M. Dupuytren, in 1824, revived the bilateral method of Celsus, which had given way to the lateral, so successfully practiced by Frere Come, who, without knowledge of anatomy or the finesse of science, was wonderfully accurate in his cutting operations.

Dupuytren used a double litholome-catche, and divided both lobes of the prostate in the simple act of withdrawal of the instrument; for the external incision he made a semi-lunar cut; and Mr. Fergusson contemplating it, modified it by making a double lateral cut in straight lines, united at the raphé, like the letter V inverted (A), and even extending the incision npward in the median line, making an incision thus (A). At this present time Sir William Fergusson, after practicing the lateral operation for a long time, proposes, as a new operation, a semi-lunar external incision, with a lateral section of the prostate for small calculi, and a bilateral section for large stones. He simply returns to the starting point.

Within the memory of the "youngest inhabitant," a large amount of unction has been expended upon the median operation, the "Allerton Method," so called; but an older than Allerton performed it. Next the medio-bilateral followed, with the highest encomiums of enthusiasts, eonsisting of a median external section, and a bilateral division of the prostate. Encouraged by the representations we adopted the plan in one case, but do not intend to repeat it.

The bilateral operation is now the English fashion, and we may expect that the privileged few, who have rubbed the coat-sleeve of some M. R. C. S., will discover in it a "new operation," and become sensational in offering it for our consideration.

This operation of Celsus, Le Dran, and any others who

have followed them, was adopted by the late Professor R. D. Mussey, and believed by him to be the best for nearly all eases. In a large experience I have been confirmed in the same opinion, and am satisfied with it. The division of both lobes of the prostate to the extent of what would be necessary if the incision was confined to one, is reasonably less liable to accidents, keeps the wound open longer, promoting more profuse suppuration, thus seeuring a more radical change in the surface of the bladder, and rendering the recurrence of the disease less liable than in eases of the speedy closure of the wound. In the operation the same knife is used to make the section of the perineum, urethra and prostate gland.

In old persons a protracted suppuration of the disorganized internal surface of the bladder is necessary to the relief of the viscus. In very young children the free opening is a safety-valve against tendencies to inflammation. In this belief, I prefer lithotomy to lithotrity, except in early manhood and middle age, where the disease has been of short duration, and to this end I always keep a catheter within the wound for twenty-four to thirty-six hours, and a gradual cieatration follows.

In all cases, I insist upon a supervision of the ease for a year or more after the operation, till I am satisfied that a change of diathesis has been effected, and the recurrence of the disease is not probable. This is a point not sufficiently insisted upon. In my experience not a single case has recurred where my orders have been respected, and in only one case in my hands has there been a recurrence, that was where a fragment of a broken culculus proved to be the nucleus of a secondary formation.

In all my operations I explore the rectum before commencing. I pass my finger into the rectum to appreciate the relations of the staff, prostate gland and bowel, to the perineum. In most eases I repeat the proceeding, from time to time, during the operation, and in children, where there is prolapsus of the rectum (which is usually the case), after making the section of the integument, I retain the

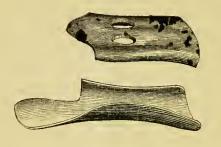
index-finger of the left hand within the rectum as a guide in the operation, till the staff is reached. Having seen several eases of recto-vesical fistulæ, I desire to avoid such complications, and thus far have been preserved from perpetrating the "accident." I commend this procedure as a valuable precautionary measure.

TREATMENT OF ANEURISM BY PRESSURE

Is recommended where the circulation of the blood can be entirely arrested. Mr. Mapother, Surgeon of St. Vincent Hospital, Dublin, reports a case of ilio-femoral ancurism cured by pressure, for four and a half hours, upon the common iliae, and a case of popliteal ancurism of two weeks standing, by pressure upon the femoral artery in scarpas triangle for nine and a half hours. The essential element of success being the complete arrest of circulation in the sac till coagulation of its contents is effected. The inability to apply such pressure, or the failure to arrest circulation, are the obstacles to success.

In the year 1857 I resorted to the following expedient to eure a traumatic aneurism of the palmar arch, where the hand was extremely swollen and tumefied, and the region of the wound spongy and almost gangrenous: I moulded a piece of gutta percha to the back of the hand and twothirds of the length of the forearm, bringing the two edges at right-angles and above the level of the palmar surface of the limb; I took another piece of gutta percha and moulded it over these edges fitting it as a cover upon a box; in this cover, over the situation of the radial artery, an inch above the radio-earpal articulation. I cut a fenestrum one and onefourth inch in length and a half inch in width, through which I placed compresses that projected above the surface of the "cover" an inch, held in place with adhesive strips and a bandago applied over the whole apparatus. This controlled the hemorrhage for a couple of days, when it became evident that the ulna artery was furnishing too much circulation to the injured artery, a fenestrum was made in the "eover" over the situation of this artery also, and a complete cure followed without any injury to the hand. By this plan any artery of the upper or lower extremity can be compressed without interfering with the circulation except at the point of application. Indeed, it would not be difficult to fix the head and neck in a mould, so that a tourniquet could be applied directly to the carotid in a case requiring its compression.

I exhibit to you an apparatus of the kind described, which was employed in a case of aneurism of the palmar arch of the hand of a child, in 1867; the compression of both the arteries forming the arch was secured at once, and a perfect cure speedily followed. You perceive how easily and completely the circulation can be controlled, and how limited are the points upon which pressure is made.



THE TREATMENT OF UMBILICAL HERNIA

In infants and young children is a very frequent necessity, and the plan proposed and employed by my honored father, the late R. D. Mussey, for thirty or more years before his death, is so simple and effective that I record it here.

The hernia is pressed back with one fore-finger when the thumb and index-finger of the other hand gathers up the integument, invaginates it, and retains it till a piece of adhesive plaster, one and a half to two and a quarter inches in width, long enough to extend two-thirds the circumference of the body, is applied. It may be necessary to reapply every third or seventh day. If the plan is persevered in a cure is certain to result.

I used this plan in the case of an adult female with partial success, and directed perseverance in the application of the strips. Two years afterward I found a slight protrusion, which gave considerable trouble—the strips were in use, but very inadequately applied. I reduced the "protrusion," and applied a small, round marble (also the suggestion of my father), directly upon the orifice and applied the adhesive strips. The result has not transpired, as the case is still under treatment, but thus far the plan has given greater relief than several trusses worn at different times. The truss usually employed is badly constructed, as there is a large projection in the center of a broad concave pad, which presses the margins of the hernial ring apart, increasing the size of the orifice, and only giving support to the abdomen.

In many cases the single strip across the abdomen is insufficient, two additional strips placed diagonally across the abdomen, and crossing each other at the umbilicus, is required.

FISSURES OF THE ANUS

Are frequently present without being recognized by practitioners; they are the source of great general suffering, and of still greater local distress, affecting the various pelvic organs, particularly the reetum, occasionally the uterus in the female, more rarely the bladder and the prostate gland in the male.

Three years sinee I was consulted by a patient who had suffered for a long time with distress in the rectum and region of the prostate gland, seriously affecting micturition. He had been treated by a surgeon for stricture of the urcthra by the introduction of bougies for many months, but without relief. After investigation I discovered fissure of the anus. Relief of all symptoms followed the treatment of the fissure.

Another ease, about the same date, of inflammation of prostate and neck of bladder had been treated variously: one "variation" was with the drainage tube of M. Chassaignac

in the perineum, two fissures of the anns were discovered and treated accordingly.

I have treated a large number of these fissures since 1853, at first following the plan of stretching the sphincter ani with a finger of each hand till the rupture was effected, as I was instructed to do by Mr. Axenfeld, Interne of Loureine Hospital, in Paris, in the year 1852. This procedure I found to answer in many cases of anemic females with lax muscular fiber, but in vigorous subjects the "stretching" would only occasionally produce complete rupture. I substituted the plan of cutting the muscle at the seat of the fissure, but this plan was followed by a long process of healing. I now prefer the subcutaneous division of the sphincter ani at a distance from the fissure, as the cicatrization is more rapid, and is attended with less local irritation.

THE TREATMENT OF FRACTURES

Has been greatly simplified in these latter days; the cumbersome boxes, close confinement, violent extension, and galling counter-extension have been superseded by light splints (where any are required), starched cloth, gutta percha, plaster of Paris and sole leather appliances, with agreeable extension with weight and pulley, and early locomotion upon crutches. While results prove that in the majority of instances the shortening of limbs rarely takes place, where the surgeon is faithful in his attentions, and frequently readjusts the appliances in the early stage of treatment.

FRACTURE OF THE PATELLA.

The "ring treatment" of this fracture is claimed as a new idea, and is recently announced as "another benefaction given to humanity by the profession," but it is an old plan revived, unquestionably without any knowledge of its previous application. In 1853, I was called to treat a case of comminuted fracture of the patella after an accident of many days' standing. There were six fragments scattered in all directions practicable. I placed a splint on the posterior aspect of the limb, and attempted to gather up the

fragments by means of adhesive strips frequently renewed, succeeding in measurably approximating the fragments. In order to confine them I moulded a piece of gutta percha over the knee-joint, cutting a fenestrum large enough to admit the fragments, and extending the margins above, below and laterally for four inches; this was retained in place with a roller.

Another case was presented in 1855, after a long treatment, with a fissure between the fragments of three-quarters of an inch, I applied Malgaigne's elamp and reduced the fissure one-half, then moulded gntta percha, as before described, to retain the fragments ir the new position.

The patient sued the original attendant for malpractice, but failed to obtain a verdict in his favor, on the defendant's testifying "that he declined the case at first, as he was no surgeon, and urged the patient to go at once to a surgeon; but the patient wished him to do the best he could."

Another case, taken after first treatment, with excessive inflammation and tumefaction of the joint, requiring leeching, and the treatment for two weeks before application of apparatus was made, resulted in the approximation of the fragments to within one-sixth of an inch, and was main tained in position so that the patient now uses the limb without any splints.

Another case was treated from the first day of the accident, by the same method, and the fragments secured in perfect apposition. After a time the gutta percha itself was fractured, and sole leather was moulded upon the joint as a substitute. There is a perfect cure, with no trace of a fracture.

You will perceive that I use a posterior splint, admitting of slight flexion of the joint, which is the natural position, supporting the equilibrium of the muscles, as all straight splints and forced extension is unnatural, and consequently painful to the patient.

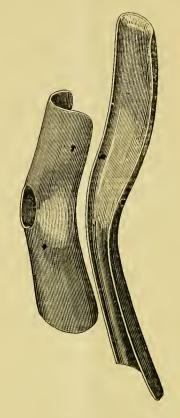
Sole leather is better than gutta percha, as it is more serviceable and less liable to break.

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Adhesive plaster retains the splint in place till the roller is applied.

Should the "ring" eause too much tumefaction of the integuments over the patella, a piece of linen or eotton cloth ean be placed over it, and the pressure will sufficiently support the eapillaries.

The apparatus is represented by the following cut:



IN FRACTURES OF THE LOWER JAW-BONE,

Where a piece has been broken out, I have drilled through the alveolus sufficiently to admit of fine silver wire, and secured the apposition of the fragments without any appli1.0%

ances; this has proved, in my hands, far preferable to affixing wires to the teeth, or the use of the ordinary external splints and bandages.

The treatment of compound fractures with carbolic acid applications, has, in my hands, resulted in the saving of very badly *mashed* limbs, which, under ordinary circumstances, must have been sacrificed by the knife.

THE TREATMENT OF MORBUS COXARIUS,

In these latter days, has been completely revolutionized, and the United States of North America can elaim, for its surgeons, the priority in the methods of treatment now admitted to be the most successful.

Professor Alden March, of Albany, suggested the necessity of removing the pressure of the head of the femur from the acetabulum.

Dr. H. G. Davis, of New York, first gave effect to the principle, in the application of his splint, secured by adhesive plaster applied the entire length of the limb longitudinally and diagonally, so as to draw over the bellies of the muscles, diffusing the traction equally upon all parts of the limb, securing "elastic extension" by this means in connection with an elastic perineal strap as counter-extension.

The principle established and eleborated to effective demonstration by Dr. Davis was appropriated and employed by others, with modified appliances, to such an extent that new names are applied to this method of treatment, to the manifest injustice of Dr. Davis; give him the honor due to the pioneer. Let Dr. Sayer be accredited with all that he may have added to the "original" as follower, and award to Dr. Fayette Taylor his meed of praise for improved apparatus, which seems to me to fulfill all the indications of treatment more complete than any that I have seen.

ORTHOPŒDIC SURGERY,

In all its branches, has progressed as remarkably as any of the foregoing topics, but I refer you, for the special record to the elaborate discussion by H. G. Davis, M. D., etc., New York, in "Conservative Surgery." etc., published by Appleton & Co., 1867, to the monographs of Dr. Fayette Taylor, New York, and Dr. Prince, of Illinois, and "Orthopædie Surgery," of Louis Bauer, M. D., of Brooklyn, and the transactions of the American Medical Association.

REGENERATION OF BONE,

After operations upon that tissue, is so well established that the aim of the surgeon should be to secure it wherever there is the least possible chance of success. Thirteen years since I secured the perfect action of the inferior maxillary bone where two-thirds of the ramus was removed, and in 1858, in the operation for removal of a section of the body of the same bone, I respected the periosteum and secured a bony consolidation with no deformity of the jaw, the lost teeth being supplied upon a plate.

The use of carbolic acid in surgery is now the "fashion." In my hands it has proved invaluable in suppressing suppuration in compound fractures and in large lacerated wounds, in restraining the suppuration of abscesses, especially in and about the hip-joint, in injections into the abdominal cavity after ovariotomy, in application to foul ulcers, chancroid, phagedena, and various forms of cutaneous diseases.

I have observed that the application of carbolic acid to freshly-cut surfaces, while the patient was in the auæsthetic state, was followed by sensibility of the part to which it is applied, and on return to consciousness there was absence of the distress and suffering that is noticeable in wounds where an anæsthetic is employed.

HYPODEMIC INJECTIONS

Of anodynes to allay pain, neuralgie or other, I have employed with the most abundant satisfaction, and in only one instance, could there have been a suspicion of injurious results, in this case even, there could be only the "suspicion."

LOCAL ANÆSTHESIA,

With the spray-producer, is one of the "wonders" of the discoveries, but it is capable of a very limited application in surgical operations mainly to the opening of abscesses, removing of nails from fingers or toes, and in opening of abscesses the pain of the freezing process and the return of sensation, often exceeds that of a direct operation without its use.

[From the Cincinnati Lancet and Observer.]

AN INSTRUMENT FOR KEEPING THE JAWS APART DURING OPERATIONS IN THE MOUTH OR THROAT.

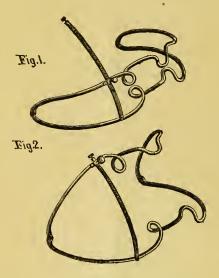
By W. H. MUSSEY, Professor Operative Surgery and Surgical Pathology, Miami Medical College, Cincinnati.

The necessity for a substitute for the wooden or cork "gag" to keep the mouth open during operations within it, especially in children, led me to the use of a large sized wire eyelid separator, in the ease of a young child with excessive hypertrophy of the tonsils, where repeated attacks of acute inflammation had caused adhesions of the glands to the pillars of the arch of the palate, necessitating the separation of the adhesions by dissections with the blunt-edged knife, previous to the application of the tonsilotome.

The "substitution" was so satisfactory that I endeavored to improve upon it, and projected an instrument with the means to fasten it at any desired angle, the ends curved back upon the checks so as not to be in the way of the operator. Mr. Tieman, of New York, has given expression to the idea, in the instrument represented in the accompanying cut.

It consists in two pieces of wire appropriately curved, united by rivets, forming hinges at the two extremities, the center curved in the manner of the eyelid speculum, but larger, and adapted to the shape of the jaws, so as to rest when applied upon the alveolus of each maxilla, a light bar is placed upon one side, to which a screw fastens it at any

point, preventing displacement or the closure of the mouth. The two ends are bent so as to apply to the sides of the face, being entirely out of the way of the operator, who can proceed to manipulate without embarrassment.



The dimensions of the instrument are from joint to joint, over the curvature, eight and three-quarter inches, in a direct line from joint to joint, five and one-quarter inches; the central mouth curve being one and one-quarter inch in length, and three-fourths of an inch projection internally.

The artist has represented a three-quarters side view.

In Fig. 1, the instrument is closed, and Fig. 2, represents it opened. Imagine it within the jaws, and you have an "open countenance," sufficient for all practical purposes.





point, preventing displacement or the closure of the mouth. The two ends are bent so as to apply to the sides of the face, being entirely out of the way of the operator, who can proceed to manipulate without embarrassment.



Fig.2.

